CLAIMS

What is claimed is:

1.   A method for maintaining a cluster definition for a network cluster having at least one member node, the method comprising:

    coupling the at least one member node to a shareable repository;

    storing a cluster definition for the network cluster in the shareable repository;

    selecting a coordinator node from the at least one member node of the network cluster;

    a member node requesting a change to the cluster definition; and

    the coordinator node updating the cluster definition to reflect the requested change.

2.   The method of Claim 1 wherein requesting a change to the cluster definition includes:

    sending a proposed change to a scratch area; and

    setting a valid bit associated with the scratch area.

3.   The method of Claim 2 wherein updating the cluster definition includes:

    verifying the valid bit;

    setting an update flag;

    modifying the cluster definition to reflect the requested change;

    logging a progress of modifying the cluster definition in a log file in parallel with modifying the cluster definition;

    incrementing a version number associated with the shareable repository; and

    clearing the valid bit and the update flag.

4.   The method of Claim 3 wherein modifying the cluster definition includes:

copying the proposed change from the scratch area to the cluster definition.

5.   The method of Claim 1 further comprising:

requesting, by a potential member node, membership in the network cluster; and

accessing, by the potential member node, the cluster definition.

6.   The method of Claim 5 wherein accessing the cluster definition includes:

determining a version number of the shared repository to yield a first version number;

reading the cluster definition;

re-determining a version number of the shared repository to yield a second version number;

comparing the first version number with the second version number; and

repeating the step of accessing the cluster definition until the first version number equals the second version number.

7.   The method of Claim 1 further comprising:

recovering from a failure of the coordinating node.

8.   The method of Claim 7 wherein recovering includes:

selecting a new coordinator node from the member nodes of the network cluster,

completing, by the new coordinator node, an update of the cluster definition to reflect the requested change if there is a set valid bit and an incomplete log file in the shareable repository.

9. The method of Claim 8 wherein completing an update includes:

reading the incomplete log file; and

continuing the update of the cluster definition from a point, as indicated by the incomplete log file, where the coordinating node ceased updating the cluster definition due to the failure of the coordinating node.

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10. The method of Claim 2 further including the step of:

re-requesting, by the member node, the change to the cluster definition if after a period of time, the change is not made to the cluster definition.

11. An apparatus for updating a cluster definition for a network cluster having at least one member node, comprising:

a shareable repository coupled to the at least one member node of the cluster, the repository including the cluster definition and a proposed change to the cluster definition; and

a coordinator node, selected from the at least one member node of the network cluster, to update the cluster definition with the proposed change.

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12. The apparatus of Claim 12 further including:

a log file, indicating a progress of updating the cluster definition.

13. A computer program product for maintaining a cluster definition for a network cluster having at least one member node, the computer program product comprising a computer usable medium having computer readable code thereon, including program code which:

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couples the at least one member node to a shareable repository;

stores a cluster definition for the network cluster in the shareable repository;

selects a coordinator node from the at least one member node of the network cluster; and

directs the coordinator node to update the cluster definition to reflect a requested change.

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